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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KANG, JULIANA K

ART UNIT PAPER NUMBER

2874

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/006,933

Applicant(s)

PSALTIS ET AL.

Examiner

Juliana K. Kang

Art Unit

2874

AW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Specification

2. The disclosure is objected to because of the following informalities: In page 1, line 6 the serial number and the filing date are missing.

Applicant claims the benefit of U.S. Non-Provisional Application. However, Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification of in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

If applicant did not mean to claim the priority of U.S. Non-Provisional Application, it would be proper to state for example, "This application is related to U.S. Non-Provisional Application No. ___/_____, filed on _____, entitled "Tunable Holographic Filter" and claims the benefit of U.S. Provisional Application No. 60/251,245, filed on December 4, 2000, the disclosures of which are hereby incorporated by reference."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: structural relationships among a holographic filter material, a quasi phase-conjugate optical system, a input optical fiber collimator, a drop optical fiber collimator and a through optical fiber collimator.

5. Claims 5, 6, 9, 12-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "said fiber optic source" in line 1. There is insufficient antecedent basis for this limitation in the claim.

The way the limitations are recited in claim 6 makes the claim vague and unclear to understand. Claim 6 recites that "Said light from said plurality of wavelength division multiplexed channels of claim 5 further comprises: collimating said light, It is not clear how the light can comprise the active steps of collimating, passing and diffracting.

Claims 9 and 12-15 recite the limitations "said optical fiber collimator." There are insufficient antecedent bases for these limitations in the claims. There are three different optical fiber collimators, an input optical fiber collimator, a drop optical fiber collimator, and a through optical fiber collimator, and it is not clear which optical fiber collimator they are referring. Also claims 14 and 15 introduce another optical fiber collimator. Is this an additional optical fiber collimator besides the three that are mentioned in claim 1? It appears that the additional optical fiber collimator is not disclosed in the specification and the drawing. For the examining purpose, the recited limitation "an optical fiber collimator" will be interpreted as the drop optical fiber collimator.

Claim 12 recites the limitation "the original incident beam" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cormack (US 2002/0057860 A1) (as best understood by the Examiner with rejections stated above).

Cormack teaches that a tunable add/drop filters comprising a Fiber Bragg Grating filter (108), a quasi phase-conjugate optical system (the light is diffracted along a path identical to the original incident beam but in the opposite direction), an input optical fiber collimator (102), a drop optical collimator (106), a through optical fiber collimator (112) and a free-space circulator placed between the input optical fiber collimator and the FBG filter is known in the art (see Fig. 1 and [0023]). Even though, Cormack's admitted prior art does not teach a holographic filter material, Cormack's present invention teaches using a holographic Bragg grating (see [0087]) to divide the input beam. Thus, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use any filter including a holographic Bragg gating in Cormack's prior art device as taught by Cormack as long as the filter divides the input beam into a drop beam and a pass beam.

Allowable Subject Matter

8. Claims 7-13 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the closest prior art, Cormack, fails to teach all the specific elements the quasi phase-conjugate optical system comprising a lens and a mirror.

Conclusion


9. The prior art documents submitted by applicant have been considered and made of record (note the attached copy of form PTO-1449).

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cormack (U.S. Patent 6,362,904 B1) teaches a tunable interference add/drop filter system.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juliana K. Kang whose telephone number is (703) 305-6259. The examiner can normally be reached on Mondays and Thursdays 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick can be reached on (703) 308-4819. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-3072.


Juliana Kang
December 18, 2003